

From: victor.a.schneider@Cummins.com
To: [Gregory Orehowsky/DC/USEPA/US@EPA](mailto:Gregory.Orehowsky@DC/USEPA/US@EPA)
Subject: Re: AECD questions 313A
Date: 06/09/2006 04:11 PM

Page 132 should have been listed in AECD#4 because it is an [REDACTED] CBI/ Ex. 4
[REDACTED] CBI/ Ex. 4 table. The first condition listed on page 125 states
that when the engine is on [REDACTED] CBI/ Ex. 4 already and we reach a density of less than
[REDACTED] CBI/ Ex. 4 to the amounts
on this table.

Orehowsky.Gregory@epam
ail.epa.gov
06/09/2006 03:59 PM
To: victor.a.schneider@Cummins.com
cc:
Subject: Re: AECD questions 313A

So the table on page 132 has [REDACTED] CBI/ Ex. 4 in the shaded
region but the engine is not operating in [REDACTED] CBI/ Ex. 4

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06/09/2006 03:22 PM
To: Gregory Orehowsky/DC/USEPA/US@EPA
cc: Khesha Jennings/DC/USEPA/US@EPA
Subject: Re: AECD questions 313A

Greg, here are answers to you 6/8/06 questions:

1. I recall similar discussions with Rick Gezelle around our 2002 AECDs and EGR valves. We agreed then that lighting the check engine lamp was the correct action to take on failures. Our strategy is to light the check engine lamp upon failures and our O&M manuals describe to the operator what action to take - and that is to take the engine to be serviced. Our policy has been and continues to be to light the check engine lamp upon failures with no de-rating of the engine, except to protect the engine. What has changed such that you are now requiring that our engines be de-rated on certain failure modes? Also, what regulation is driving this?

2. The engine does NOT activate [REDACTED] CBI/ Ex. 4
(your original question was misunderstood and our answer was not correct). [REDACTED] CBI/ Ex. 4 is only
utilized when the engine is already operating on the [REDACTED] CBI/ Ex. 4 due to
another appropriate AECD being active. The other two components of the
AECD - [REDACTED] CBI/ Ex. 4
[REDACTED] CBI/ Ex. 4 (as shown on page 125 of the 06APR AECD document) - do not activate
[REDACTED] CBI/ Ex. 4

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victor.a.schneider@Cummins.com
Jennings.Khesha@epamail.epa.gov
06/08/2006 11:08 AM
questions 313A
To:
cc:
Subject: Re: AECD

Victor:

Regarding Items 1 and 2 in my original e-mail from May 5

1. In the examples given (pages 102 and 109), Cummins must derate the engine when EGR is shut off. EPA wants to ensure owners will take action to fix EGR problems.

2. For AECD 7 part 4, is the calibrations switched to [CBI/ Ex. 4] to limit
[CBI/ Ex. 4] Why isn't the [CBI/ Ex. 4] modulated before
switching to [CBI/ Ex. 4]

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05/15/2006 11:07
AM

Gregory Orehowsky/DC/USEPA/US@EPA
Khesha Jennings/DC/USEPA/US@EPA
Subject
Re: AECD questions 313A

Answers below.

Orehowsky.Gregory@epam
ail.epa.gov To:
victor.a.schneider@Cummins.com cc:
Jennings.Khesha@epamail.epa.gov
05/05/2006 04:13 PM Subject: AECD
questions 313A

Victor:

Here are questions based on the current version of the document. I will
be out next week. You can contact Khesha with any questions.

1. Pages 102 and 109 When engine operates as [CBI/ Ex. 4] engine, will the
driver notice any performance degradation from the engine or is the
warning light the only indication of a problem?

Answer:
No. [CBI/ Ex. 4] The check engine light is illuminated
for
all fault-induced EGR off actions.

2. AECD #7 Part 4 When the engine switched to [CBI/ Ex. 4] do
all tables go to [CBI/ Ex. 4]?

Answer:
Yes, all tables go to [CBI/ Ex. 4]. These tables are disclosed in AECD #4.

3. AECD #7 Part 6 The aecd mentions controlling [CBI/ Ex. 4]. To
what extent is engine [CBI/ Ex. 4] limited?

Answer:
The engine is limited to [CBI/ Ex. 4] across the speed range.
[CBI/ Ex. 4] This will be corrected in the next AECD
document revision.

4. AECD #9 Part 3 How is this transient strategy included in SET
test, page 234

Answer:
This AECD is NOT included in the SET test. This will be correct in the
next AECD document revision.

5. AECD #10 Part 3 Is part 3 of this AECD prevent by the part 2?

Answer:
Part 3 of this AECD is being removed and will be reflected in the next
AECD
document revision. [CBI/ Ex. 4]
effectively deal with the issue.

6. When will Cimmins submit a complete application

Answer:
Cummins plans to submit the complete application [CBI/ Ex. 4]

7. When will you have VMT and ton estimates for the strategies?

Answer:
Estimates of VMT and tons will be provided in the next AECD document

revision. Please refer to the attached spreadsheet that explains with
AECDS were analyzed with respect to VMTs and tons, which ones were not,
and
the reasoning for it.
(See attached file: Tons quantification list.xls)

Please let me know if you have any questions.

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